

NOTE

A Polynomial Riley Name in Cecidomyiidae (Diptera) and  
Implications of Such Names for Cynipidae (Hymenoptera)

In an article on insects injurious to grape vines, Riley (1873, Fifth Ann. Rept. Noxious and Beneficial Insects of the State of Missouri, p. 117) coined the name *Vitis tomatos* for tomato-like galls on grape. This name has not to my knowledge been used in the scientific literature since then. Riley evidently intended to use the name to refer to the gall only, because he wrote that the gall was made by the gall midge *Lasioptera vitis* Osten Sacken 1862. A name proposed before 1931 for the work of an animal may be considered available in zoological nomenclature (Int. Code. Zool. Nomen. 1984, 3rd ed., Art. 1a), but Riley did not explain why he used separate names for the gall and gall maker. The question now is whether the generic or specific names of *Vitis tomatos* are available for taxonomic use. The answer is important because *L. vitis* is not the actual gall maker. Instead, that species appears to be only an occasional inquiline in galls caused by *Janetiella brevicauda* Felt 1908 (pers. observ.; R. B. Johnson unpub. thesis, Cornell University, 1952). If *Vitis* is an available generic name, it could be used for a group of grape-feeding species that includes *brevicauda* and that are now in the catch-all genus *Janetiella*; if *tomatos* is available, it would be a senior synonym of *brevicauda*.

Judged solely from the contents of Riley's paper (ibid.), *Vitis tomatos* would appear to be available for use. To find out what Riley might have intended, one needs to look elsewhere. Earlier in Riley's paper (p. 114), the name *Vitis pomum* Walsh and Riley is used for another gall on grape. That species had been described previously as [*Cecidomyia*] *Vitis pomum* (Walsh and Riley 1869, Am. Entomol. 1: 106). The name *Cecidomyia* was understood, being the heading (p. 105)

of the section in which several gall midges and their galls were described. Walsh and Riley (ibid.) coined many other names in that formula: the generic name understood and not repeated for each species; another word capitalized and in the genitive form of the plant name; and the final word descriptive of the gall. For [*Cecidomyia*] *Vitis pomum* that meant, "apple [gall] of grape [formed by a *Cecidomyia*]."

Two separate reasons to invalidate *Vitis tomatos* appear to be present: that *Vitis tomatos* is in reality a polynomial and that *Vitis* is in the genitive case. Polynomials are not available according to binomial nomenclature and so are not considered by the International Code of Zoological Nomenclature (ICZN 3rd ed., 1985). There is a provision of the ICZN (Art. 11h(v)) to accept species-group names that were published as separate words referring to a single entity. For example, *Cecidomyia piniinopsis* Osten Sacken was originally coined as *Cecidomyia pini inopsis* but, because *pini inopsis* is based on the host, then known as *Pinus inopsis*, the separate words are closed up and the name considered available from its original description. But *Vitis pomum* is not available from 1869, when proposed by Walsh and Riley, but from 1878, when Osten Sacken (1878, Smithson. Misc. Colls. 270: 7) combined the two separate words as *Cecidomyia vitis-pomum*, thus satisfying the provisions of binominal nomenclature and making Osten Sacken the author as of 1878.

The second point one notices when leafing through the paper by Walsh and Riley is that the first word of any two-word name is in the genitive case, e.g. *Salicis brassicoides* Walsh (p. 105) and *Populi vagabunda* Walsh (p. 107). *Vitis*, too, if one assumes

the practice was continued, must be in the genitive case, although that name, being in the third Latin declension, takes the same form for the nominative and genitive cases. The International Code of Zoological Nomenclature (Art. 11g) requires that a generic name be in the nominative singular.

Indications are that Riley formed *Vitis tomatos* following the pattern used by Walsh and Riley of using polynomial names and using the penultimate word in the genitive case. *Vitis tomatos*, then, appears to be invalidly constructed and not available for taxonomic use.

While researching this problem, I noticed that the Catalog of Hymenoptera in America North of Mexico (Krombein, Hurd, Smith, and Burks 1979, Smithsonian Institution Press) improperly lists many cynipid names as available from the date their specific names were coined as two independent words that do not refer to a single unit, un-

like *pini inopis* above. Consider *Atrusca quercuscentricola* (ibid., p. 1090), which was described as *Cynips quercus centricola* (Osten Sacken 1861, Proc. Entomol. Soc. Phila. 1: 58); the name should be *Atrusca centricola* and date from 1865 when Osten Sacken (1865, Proc. Entomol. Soc. Phila. 4: 345) first used a single word for the specific name of that species.

I am grateful to L. G. Clark for sending me a copy of the R. B. Johnson thesis and to W. N. Mathis, R. V. Peterson, C. W. Sabrosky, G. C. Steyskal, and F. C. Thompson for their comments on an early draft of this paper.

Raymond J. Gagné, *Research Entomologist, Systematic Entomology Laboratory, PSI, Agricultural Research Service, USDA, % U.S. National Museum NHB 168, Washington, D.C. 20560.*